INDOOR AIR POLLUTION

Indoor air quality guidelines: household fuel combustion

Almost 3 billion people, in low- and middle-income countries mostly, still rely on solid fuels (wood, animal dung, charcoal, crop wastes and coal) burned in inefficient and highly polluting stoves for cooking and heating. In 2012 alone, no fewer than 4.3 million children and adults died prematurely from illnesses caused by such household air pollution, according to estimates by the World Health Organization.

Together with widespread use of kerosene stoves, heaters and lamps, these practices also result in many serious injuries and deaths from scalds, burns and poisoning. These new indoor air quality guidelines for

CHILDREN’S ENVIRONMENTAL HEALTH NEWS

Press Releases

Worldwide action needed to address hidden crisis of violence against women and girls

Current efforts to prevent violence against women and girls are inadequate, according to a new Series published in The Lancet. WHO (21/11/14)

UN Says Global Carbon Neutrality Should be Reached by Second Half of Century, Demonstrates Pathways to Stay Under 2°C Limit

In order to limit global temperature rise to 2°C and head off the worst impacts of climate change, global carbon neutrality should be attained by mid-to-late century. This would also keep in check the maximum amount of carbon dioxide (CO₂) that can be emitted into the atmosphere while staying within safe temperature limits beyond 2020. UNEP (19/11/14)

Lack of toilets dangerous for everyone

Slow progress on sanitation and the entrenched practice of open defecation among millions around the world continue to put children and their communities at risk, UNICEF warned on World Toilet Day. UNICEF (19/11/14)
household fuel combustion aim to help public health policy-makers, as well as specialists working on energy, environmental and other issues understand best approaches to reducing household air pollution -- the greatest environmental health risk in the world today. (Taken directly from WHO website)

Link to WHO for more information and to download the publication

Additional Publications:

**UN-water global analysis and assessment of sanitation and drinking-water (GLAAS) 2014 - report**
Access to safe drinking-water and basic sanitation is essential to human health and survival. But for many people living in low-resource settings, these vital services remain out of reach.

The UN-Water GLAAS 2014 Report, Investing in Water and Sanitation: Increasing Access, Reducing Inequalities is the third biennial GLAAS report. It presents data from 94 countries, covering all MDG regions. It also includes data from 23 external support agencies (ESAs), representing over 90% of official development assistance (ODA) for sanitation and drinking-water (Taken directly from WHO website).

Link to WHO to download the publication

Rethinking How We Live, How We Buy and What We Consume
A new global report aimed at supporting the shift to a more resource-efficient world through sustainable lifestyles, was launched by the Ministry of Environment of Japan, the Government of Sweden and WWF. Should the global population reach 9.6 billion by 2050, the equivalent of almost three planets could be required to provide the natural resources needed to sustain current lifestyles. UNEP (11/11/14)

**Climate Change Threatens Irreversible and Dangerous Impacts, But Options Exist to Limit its Effects**
This is the concluding instalment of the Fifth Assessment Report. The report confirms that climate change is being registered around the world and warming of the climate system is unequivocal. UNEP (2/11/14)

**In the Media**

**More Toxins in Clothes Than Previously Believed**
Clothes contain much more toxic chemicals than previously known, according to a study by the Swedish Chemicals Agency. Epoch Times (24/11/14)

**Farmers Spray Pesticides Near Schools with No Notification Required**
Most California counties don't require farmers and growers to tell schools about potentially dangerous chemicals used in their pesticide spray. Bay Arena NBC (24/11/14)

**Common toxins make big difference in brain development**
A conversation has started in Canada that could mean a brighter future for our children. This new conversation is about
JOURNAL ARTICLES

Air Pollution

Social stressors and air pollution across New York City communities: a spatial approach for assessing correlations among multiple exposures
Recent toxicological and epidemiological evidence suggests that chronic psychosocial stress may modify pollution effects on health. Thus, there is increasing interest in refined methods for assessing and incorporating non-chemical exposures, including social stressors, into environmental health research, towards identifying whether and how psychosocial stress interacts with chemical exposures to influence health and health disparities. The authors present a flexible, GIS-based approach for examining spatial patterns within and among a range of social stressors, and their spatial relationships with air pollution, across New York City, towards understanding their combined effects on health.

Environmental Health

Chemicals

Early-Life Bisphenol A Exposure and Child Body Mass Index: A Prospective Cohort Study
Early-life exposure to bisphenol A (BPA) may increase childhood obesity risk, but few prospective epidemiological studies have investigated this relationship. The authors sought to determine whether early-life exposure to BPA was associated with increased body mass index (BMI) at 2–5 years of age in 297 mother–child pairs from Cincinnati, Ohio (HOME Study). They concluded that prenatal and early-childhood BPA exposures were not associated with focusing our collective attention on a serious threat to tiny developing brains: toxic exposures. Toronto Star (23/11/14).

Toxic Truth: Sad legacy of pollution for next generation
When the Pasminco lead smelter at Boolaroo, New South Wales closed in 2003 it left behind more than a century's worth of toxic pollution. The surrounding community and environment continues to suffer from the plant's legacy. Illawarra Mercury (22/11/14)

"Little Things Matter' Exposes Big Threat To Children's Brains
A new seven-minute project, "Little Things Matter," draws on emerging scientific evidence that even mild exposures to common contaminants can derail normal brain development -- lowering IQs and raising risks of behavioral conditions such as attention deficit hyperactivity disorder, or ADHD. Huffington Post (21/11/14)

The Stoves Used by Millions in Developing Countries Are a Silent Killer
As many as 4 million people in developing countries die every year from illnesses caused by smoke and other pollutants that fill their homes every time they fire up the stove to cook a meal for their families. Newsweek (21/11/14)

Half Yemen's children malnourished as hunger worsens strife
Nearly half the children in Yemen are suffering from malnutrition, the agriculture minister has said, as insurgencies, water scarcity and climate change exacerbate sectarian strife in the Arabian Peninsula's poorest state. Reuters (21/11/14)

Childhood cancer treatments can result in a host of chronic illnesses
The Children's Cancer Institute of
increased BMI at 2–5 years of age, but higher early-childhood BPA exposures were associated with accelerated growth during this period.

*Environmental Health Perspectives*

**Primary prevention of lead poisoning in children: a cross-sectional study to evaluate state specific lead-based paint risk reduction laws in preventing lead poisoning in children**

Children younger than 72 months are most at risk of environmental exposure to lead from ingestion through normal mouthing behavior. Young children are more vulnerable to lead poisoning than adults because lead is absorbed more readily in a child's gastrointestinal tract. The focus in this study was to determine the extent to which state mandated lead laws have helped decrease the number of new cases of elevated blood-lead levels in homes where an index case had been identified. The authors concluded that for the three states studied, the evidence suggests that lead laws effectively reduced primary exposure to lead among young children living in residential addresses that may have had lead contaminants.

*Environmental Health*

**Prenatal Organochlorine and Methylmercury Exposure and Memory and Learning in School-Age Children in Communities Near the New Bedford Harbor Superfund Site, Massachusetts**

Polychlorinated biphenyls, organochlorine pesticides, and methylmercury (MeHg) are environmentally persistent with adverse effects on neurodevelopment. However, especially among populations with commonly experienced low levels of exposure, research on neurodevelopmental effects of these toxicants has produced conflicting results. The authors assessed the association of low-level prenatal exposure to organochlorine compounds and MeHg with memory and learning in school-age children near the New Bedford Harbor Superfund site in Massachusetts. They found that prenatal exposure to organochlorine compounds and MeHg was associated with reduced academic performance in school-age children.

*Ecologist (16/11/14)*

**World is crossing malnutrition red line, report warns**

The Global Nutrition Report said every nation except China had crossed a "malnutrition red line", suffering from too much or too little nutrition. BBC (15/11/14)
exposure to these contaminants with memory and learning and concluded that their results support an adverse relationship between low-level prenatal MeHg exposure and childhood memory and learning, particularly visual memory. *Environmental Health Perspectives*

**Asbestos: use, bans and disease burden in Europe**

The objective of this study was to analyse national data on asbestos use and related diseases in the European Region of the World Health Organization (WHO). Countries were categorized by ban status: early-ban, late-ban and no-ban. The authors found that within the European Region, early-ban countries reported most of the current asbestos-related deaths. However, they suggest that this might shift to the no-ban countries, since the disease burden will likely increase in these countries due the heavy use of asbestos. *Bulletin of the World Health Organization*

**Reproductive Health**

*A systematic mapping of funders of maternal health intervention research 2000–2012*

The priorities of research funding bodies govern the research agenda, which has important implications for the provision of evidence to inform policy. This study examines the research funding landscape for maternal health interventions in low- and middle-income countries. *Globalization and Health*

**Chemical from plastic found in high levels in infant diets**

Parents try to provide nutritious meals, but they might also be feeding their kids a diet high in dangerous chemicals. Phthalates are turning up in surprising places. Seattle KOMO (12/11/14)

**Are we eating plastics?**

From a public health perspective, heated plastic is an unnecessary source of exposure to harmful elements and stringent measures must be taken to prevent it. Malaysian Insider (11/11/14)

**Ozone Conflict Rages**

In the next few weeks, the Obama Administration will disclose whether it plans to tighten the federal air quality standard for ground-level ozone, the main component of lung-irritating smog. This outcome will be the latest twist in a battle between public health advocates and industry groups. Chemical and Engineering News (10/11/14)

**Ban on smoking in cars will be passed into law within weeks and come into force in October 2015**

British law will be changed to ban smoking in cars carrying children next month. Legislation is expected to be passed in December, with the ban coming into force from October next year. London Daily Mail (10/11/14)

**Study links childhood toxic stress to lifelong health problems**

One in six California adults experienced significant childhood stress, in the form of abuse, neglect or family dysfunction, that significantly increases their odds of having dementia or Alzheimer's, kidney disease and other health problems, a pioneering study concludes. San Francisco Chronicle (6/11/14)
Water and Sanitation

Effectiveness of a rural sanitation programme on diarrhoea, soil-transmitted helminth infection, and child malnutrition in Odisha, India: a cluster-randomised trial
A third of the 2·5 billion people worldwide without access to improved sanitation live in India, as do two-thirds of the 1·1 billion practising open defecation and a quarter of the 1·5 million who die annually from diarrhoeal diseases. The authors aimed to assess the effectiveness of a rural sanitation intervention, within the context of the Government of India's Total Sanitation Campaign, to prevent diarrhoea, soil-transmitted helminth infection, and child malnutrition. Increased latrine coverage is generally believed to be effective for reducing exposure to faecal pathogens and preventing disease; however, the results show that this outcome cannot be assumed. The authors concluded that as efforts to improve sanitation are being undertaken worldwide, approaches should not only meet international coverage targets, but should also be implemented in a way that achieves uptake, reduces exposure, and delivers genuine health gains.

The Lancet Global Health

UPCOMING EVENTS

Excellence in Pediatrics
4-6 December 2014. Dubai, UAE.

Pathways to Sustainable Development
9-11 December 2014. Islamabad, Pakistan

CEHN 2015 Research Conference
Children: Food and Environment

Air pollution linked to children's attention problems
New York City children exposed in the womb to high levels of pollutants in vehicle exhaust had a five times higher risk of attention problems at age 9, according to research by Columbia University scientists. Environmental Health News (5/11/14)

Air pollution in smokers' homes can reach outdoor levels in worst cities
Living with a smoker can be like breathing the air in the world’s most polluted cities, according to a new study from Scotland. Reuters (4/11/14)

High levels of cancer-causing arsenic in rice – so why isn’t it regulated in our food?
There are two sides to rice: the grain that feeds half the world – and the primary carcinogenic source of inorganic arsenic in our diet. The Conversation UK (3/11/14)

The babies who die for want of clean water
At a clinic in rural Tanzania, Cherrill Hicks meets mothers who have lost infants to easily preventable illnesses caused by dirty water and lack of access to basic latrines. The Telegraph (3/11/14)

More than half of rice products exceed new EU limits for Arsenic
New research has found that more than half of Britain's most popular rice products - including Kellogg's Rice Krispies and Smooth Baby Rice by Heinz - exceed proposed new EU limits for arsenic. Daily Mail (2/11/14)

A Potential Mechanism for Immune Effects of Prenatal Exposures
Epidemiological studies suggest that prenatal and early-life exposures to certain chemicals can influence immune
system function later in life. New research now reveals a mechanism by which dioxin exposure in fetal life can impair proper development of the immune system. Environmental Health Perspectives News (2/11/14)

PCBs and Impaired Cochlear Function in Children: Comparing Pre- and Postnatal Exposures
A new study reported in EHP specifically links postnatal, but not prenatal, PCB exposure with impaired cochlear function. Environmental Health Perspectives (2/11/14)

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